

## **ABSTRACT**

A method and apparatus for efficient memory allocation and system management interrupt (SMI) handling is herein described. Upon waking a second processor in a multiple processor system, one may use a single SMI to initialize each processor, may use the location of a single default SMI handler as a wake-up vector to the second processor, and may patch an instruction pointer to a non-aligned address during the handling of the SMI with the second processor to forgo the traditional extra aligned memory allocation. In addition, one may use unified handler code to handle software generated SMIs on both the first and second processors and may exit SMM directly after handling a hardware SMI to save execution time.